THELASSHET



SENSITIVE

8 August 1962

MEMORANDUM FOR THE SPECIAL GROUP (AUGMENTED)

From:

Brig. Gen. Lansdale

Subject:

Medium-Wave Broadcasting to Cuba

At a meeting with the operational representatives of Operation Mongoose, I August, General Taylor and the Attorney General asked about the possibility of strong medium-wave broadcasts into Cuba. In response, Don Wilson of USIA has sent me some thoughtful studies on this subject, after collaboration with State and CIA at the operating level, and noting an earlier memorandum from Ed Murrow about broadcasts from the U.S. (which Mr. Murrow discussed with the Special Group). These studies are attached, for your information.

The conclusions reached are:

- a. Medium-wave broadcasts from stations in the U.S. are a possibility for short term tactical purposes. They would be illegal in terms of international agreement and could bring serious reprisals (Cuban interference with medium-wave broadcasts over wide areas of the United States).
- b. Although it was believed that Swan Island broadcasts could be strengthened and possibly undergo a character change (becoming similar to Radio Free Europe) to gain Cuban listeners, further study concludes that no new medium-wave capability should be developed from Radio Swan (difficult and expensive logistic problems, coupled with April 1961 reputation).
- c. A thousand kilowatt transmitter is in storage in the U.S. It is estimated that it would take about 15 months, at a cost of about \$8 million, to install a transmitter of this power as rapidly as possible.
- d. Ten locations around the Caribbean were studied as possible sites for a powerful transmitter, considering technical and political feasibility. Venezuela ranked first politically, tenth for technical reasons. The Dominican Republic would appear to present the best prospects from a political standpoint and ranks second technically. The political feasibility of establishing a transmitter on foreign soil in the political feasibility of establishing a transmitter on foreign soil in the other locations studied appears remote. Declassified/Released on Declassified/Rele

Excluded from automatic regrading: DoD Directive 5200.10 does not apply.

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TOP SECRET

e. Cuba could negate our medium-wave effort, if Castro so desired, by using surplus transmitters in Cuba to broadcast locally on the same frequency. (It is more difficult to jam short-wave broadcasts, due to the capability for simultaneous broadcasts on multiple frequencies.)

Attachments

"Special Handling" copies to:

Special Group (Augmented)

1 - General Taylor 5- Mr. Kennedy
2 - Mr. Johnson 6- Gen. Lemnitzer
3 - Mr. Gilpatric

4 - Mr. McCone

Operational Representatives

7 - Mr. Hurwitch (State) 9 - Mr. Harvey (CIA) 8 - Gen. Harris (Defense) 10 - Mr. Wilson (USIA)

11 - 14 - Chief of Operations



TOPSECRET

UNITED STATES INFORMATION AGENCY WASHINGTON

August 3, 1962

MEMORANDUM FOR: Brig. General Edward G. Lansdale

SUBJECT: The Technical Feasibility of Medium Wave Broadcasting to Cuba.

The problem presented is how best to provide a medium wave radio signal throughout the island of Cuba. For purposes of this study it is assumed that the transmitter will be located outside the continental United States, and it is assumed that the transmitter will have a power of a thousand kilowatts and will use a directional antenna. And it is further assumed that the North American Regional Broadcasting agreement (NARBA), to which the United States is a signatory nation, will be abrogated.

If it is assumed that a clear channel can be provided by the FCC and if it is assumed that the Cuban government would not attempt to interfere with the transmissions, satisfactory service could be provided from a number of Caribbean sites. If you were primarily interested in daytime coverage, Jamaica, Grand Cayman or Andros Island in the Bahamas would be best. However, if both day and night were considered, and varying factors were weighted, the sites would be ranked as follows: Nassau 61, Dominican Republic 59, Jamaica-Cayman Island 55, Navassa Island 50, Nicaragua-Honduras 49, Swan Island 48, British Honduras 44, Grand Abaco-Grand Bahama Island 43, Puerto Rico 42, Venezuela 37.

If the FCC did not provide a clear channel, nighttime coverage would be drastically reduced. In order to provide such a channel, the government would undoubtedly have to purchase an existing clear channel station since its value would be ruined by our extended use of its frequency. It should also be borne in mind that our transmitting power of a thousand kilowatts would undoubtedly severely interfere with U.S. and Caribbean stations on adjacent channels and would undoubtedly result in many complaints from Caribbean countries.

Presidently Declassified/Released on 12-28-88

(FIS-431) under providions of E.O. 12123
by N. Michan, Malland State of Council



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Even more serious, however, is the ease with which the Cuban government could negate the whole effort by placing some of their transmitters on whatever frequency we select. The shaded area on the map shows what the Cuban government could do merely by utilizing existing transmitters which are now surplus to their needs. These transmitters are surplus because they were built when there was private competitive broadcasting and most cities and towns had more than one transmitter. Now that there is only one program, many transmitters are no longer required. If Castro was sufficiently concerned to put most of his transmitters on our frequency, we would have virtually no listenership. It probably would not interfere too greatly with his own coverage, particularly in the cities.

While a thousand kilowatt medium wave transmitter is now in storage, the power plant would have to be procured or diverted from Liberia. It is estimated that it would take about fifteen months and cost about eight million dollars to install a transmitter of this power as rapidly as possible. This does not take into account whatever time would be required to obtain the political permission and to locate a physical site.

In contrast to medium wave coverage, short wave coverage is much more difficult to jam because you can operate on so many more frequencies simultaneously, and Castro's existing capabilities in the short wave field are limited. It is easy to provide a strong short wave signal from the U.S. or anywhere in the Caribbean. The new VOA station in North Carolina, which will commence broadcasting in December 1962, will provide an even stronger signal than our current excellent one. The number of short wave receivers in Cuba is unknown, although we do know that more than half of the defectors questioned at Opa Locka state that they have listened to short wave radio. It is interesting to note that a Latvian Electrical Company has announced that it has filled the first part of a large order of tropicalized receivers for Cuba capable of reception on both medium wave and short wave.

Attached is a paper outlining the technical factors considered in comparing ten different potential locations. The technical factors considered are:

(1) Program feed from the U.S. (relative ease or difficulty in providing live program material to the transmitter from U.S. sources.)

TOPRESSET

- (2) Skywave (nighttime) signal coverage of Cuba. (Signal coverage calculations are based on FCC skywave curves, increased by a factor of 4 db to take into account geomagnetic conditions in the Caribbean area.)
- (3) Groundwave signal coverage of Cuba. (Signal coverage based on FCC curves.)
- (4) Fading zone effects in Cuba (potential distortion and severe fading as a result of interaction of skywave and groundwave signals during the nighttime hours.)

Interference to or from radio stations in the U.S. or other adjacent countries, has not been considered since the assumption is made that the proposed station will operate on a clear channel.

The locations chosen for comparison are as follows (where several locations are lumped together, the technical suitability, propagation-wise, is considered to be essentially the same for each location):

- (1) Grand Abaco Island, Grand Bahama Island, and other nearby islands in Bahamas.
- (2) Nassau.
- (3) Navassa Island.
- (4) Puerto Rico.
- (5) Dominican Republic.
- (6) Swan Island.
- (7) British Honduras.
- (8) Nicaragua/Honduras (on the sea coast near border of the two countries.)
- (9) Cayman Island.
- (10) Venezuela.

TOP SECRET

The attached chart shows the relative comparison between the various locations, considering the various technical factors as aforementioned.

(signed)

Donald M. Wilson Deputy Director

Attachments

					Pica		.		• * * * * *	d		
		Weighing Factor	Nassau	Dominican Republic	Cayman Island - Jam	Navassa Island	Nicaragua/ Honduras	Swan Island	British Honduras	Gr. Abaco/ Brand Bahan Island	Puerto	Venezuela
1.	Program feed from U.S.	5	5	4	4	4	4	4	4	• 3	5	4
2.	Skywave, nighttime signal in Cuba	10	4	4	5		3	4	3	4	2	2
3.	Fading zone effects in Cuba	-8	3	2	5	5	2	4	2	4	1	1 5
4.	Groundwave, daytime signal in Cuba	5	4	3	5	4	3	4	2	4	1	1
	Total		61	59	5 5	50	49	48	44	43	42	37

8 August 1962

MEMORANDUM FOR GENERAL LANSDALE

From:

Robert A. Hurwitch (State) and Don Wilson (USIA)

Subject: Joint State-USIA Memorandum

State and USIA have considered the political pros and cons of the 10 best locations for medium-wave transmitters. We rate them in the following order:

Dominican Republic 1.

The Dominican Republic would probably welcome such an opportunity. They are currently unhappy about Cuban broadcasts and would most likely be pleased to retaliate. A station in the Dominican Republic would have a Latin American cover, although it would have more of a taint of U.S.-Yankee influence than in Venezuela. It should be pointed out that the Council of State is scheduled to go out of office in December. Any successor to it might not be as enthusiastic about such a station.

Venezuela 2.

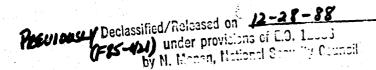
This would be a very desirable choice because the Betancourt Government would provide highly acceptable cover for the station. The precarious position of the Government, however, makes it quite unlikely that Betancourt would agree to establishing the station in Venezuela, for it would gratuitously provide ammunition for his political opposition.

Jamaica/Cayman Islands

Despite its anti-Castro policies, the attitude of the newly independent Jamaican Government to such a project would probably be negative. The presence of many thousands of Jamaicans in Cuba would be a major factor affecting a Jamaican commitment of this kind.

Honduras

A station here would have a Latin American cover in a country that has a reasonably democratic tradition. However, the likelihood of the Honduran Government agreeing to the establishment of the station in Honduras before the elections in October 1963 is very remote.







5. Nassau/British Honduras/Gr. Abaco/Gr. Bahama Islands

A commitment by the British to such a broadcast facility would be very desirable politically. The involvement of a major NATO power would have beneficial effects throughout the Hemisphere. However, the possibility of British commitment to such a broadcast facility is practically nil.

6. Nicaragua

The image of Nicaragua as a long-time dictatorship would make this a most undesirable site. The credibility of a broadcasting station located in Nicaragua would be almost totally under-cut from its inception. The Nicaraguan Government would probably welcome such an opportunity, however.

7. Navassa/Puerto Rico

As U.S. territory, both these alternatives would bear the same general liabilities as a location in Florida.

8. Swan Island

We reject the consideration of Swan Island outright, because its credibility has been totally under-cut by its association in the minds of the Cubans with the April 1961 invasion failure.

THE ASSIET

UNITED STATES INFORMATION AGENCY WASHINGTON

August 4, 1962

JOINT USIA-CIA MEMORANDUM FOR:

Brigadier General Edward G. Lansdale

In a memorandum dated May 23, 1962, from Edward R. Murrow to Brigadier General Edward G. Lansdale, USIA recommended a Radio Free Europe type approach utilizing either: the present facilities of Radio Swan, facilities located in Florida, one of the Caribbean Islands, or a floating transmitter. Since that time CIA has developed a Radio Free Europe type project to be operated from facilities located in Florida. USIA has not as yet seen this plan.

USIA and CIA have been asked to comment on the future capabilities of medium-wave broadcasting from Radio Swan -- Radio Americas. It is our present feeling that no new medium-wave capability should be developed from Radio Swan. Our reasons are as follows:

- 1. Radio Swan, a 50 kilowatt medium-wave station is operating at maximum technical capability now. In order to improve its technical capability, an entirely new facility would have to be constructed.
- 2. There are better locations than Swan Island for such new facilities. USIA's memorandum of August 3, 1962, addressed to you points out, for example, that Nassau, Dominican Republic, Cayman Island-Jamaica, Navassa Island, Nicaragua, Honduras are all better locations. Florida, of course, is too.
- 3. The logistics involved in supplying Swan Island are extremely expensive and difficult. The construction of a new facility would involve building a pier, developing off-shore fueling points and constructing an entirely new power supply. The Island is so small that the radiated power from new transmitters would create a problem of mutual interference with necessary receiving facilities.

- 4. Radio Swan is, in our opinion, inextricably linked with the failure of the April 17, 1961 invasion attempt. Its credibility is low. A new Radio Free Europe type sponsorship would always be tarred by past associations.
- 5. We do not believe that a change in the frequency would hide its identity. A change of frequency would be reported as a matter of course in the Free World. It certainly would draw continuing attention from Castro propagandists.
- 6. We do not believe that a change in name would materially improve the credibility of the station. Although currently called Radio Americas, the evidence from refugees indicates that Cuban listenership still regards the facility as Radio Swan.

(signed)

Donald M. Wilson Deputy Director USLA

Cleared by: CIA - Mr. Seymour Bolten (signed)

TOP SECRET

UNITED STATES INFORMATION AGENCY WASHINGTON

May 23, 1962

TOP SECRET - Group 2

MEMORANDUM FOR:

Brigadier General Edward G. Lansdale

SUBJECT: Medium-Wave Broadcasting to Cuba

Attached is the requested memorandum on broadcasting.

(signed)

Edward R. Murrow Director

Attachments:

As stated (TOP SECRET)

Preparety Declassified/Released on 12-28-88

Declassified/Released on 12-28-88

under provisions of E.O. 12303

by N. Manan, National State by Council

TOP SECRET

ABSTRACT

Medium-wave broadcasting to Cuba is possible. After a careful study of the various possibilities, we feel that the most feasible approach would be to strengthen the Radio Americas (Radio Swan) operation and give it a new approach somewhat comparable to Radio Free Europe. We believe that a privately operated station of this type, with covert support, could attract and hold substantial listenership in Cuba. As alternatives or supplements we would suggest installation of a new medium-wave facility pointed to Cuba in Florida or one of the Caribbean islands or use of a "Courier" type floating transmitter operating from our territorial water. Contracting with one of the 17 U.S. "clear channel" stations entails certain economic and internal political roadblocks but remains a possibility for short term tactical purposes.

There are strong obstacles to any of these, the main legal one being our adherence to an international agreement which, in effect, prevents us from beaming medium-wave signals into another country. To ignore this might bring on serious reprisals, such as Cuban interference with domestic U.S. medium-wave broadcasts over wide areas of the United States. Technical obstacles include the high noise level and bad atmospheric conditions over Cuba, the relative ease of jamming medium-wave, and the low strength of transmitters currently available to us.

It is our strong opinion that the U.S. Government should not engage in overt electronic warfare with the Cubans.



MEMORANDUM

SUBJECT: Medium-Wave Broadcasting to Cuba

I. Situation:

Studies over the past several years indicate that medium-wave broadcasting from mainland or island points to Cuba, using either existing or new equipment, is feasible but has serious limiting factors.

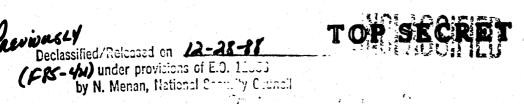
A VOA survey prior to our rupture of diplomatic relations with Cuba disclosed that day time hours reception of U.S. medium-wave, in Cuba, was not very good. Along the northern shore of the island, fair reception of WGBS Miami and WKWK Key West was possible but these stations could not be heard very far inland or in the large cities. During the night hours, when medium wave reception generally improves, the Miami and Key West stations and WSB Atlanta on 710 kw could be received quite well throughout the western half of Cuba.

Subsequent experience with Radio Swan (now Radio Americas) and Cuban exile hours on the Miami station, demonstrates that a reasonable but not consistent medium wave signal can be laid down to the island, and can be heard reasonably well in some areas. But on balance we would have to rate the utility of these existing channels, from a technical standpoint, as being marginal at best because of sporadic reception, high noise levels, and the relative case of jamming. The prospects for medium-wave transmission over different channels or new and more powerful facilities are better but must also be weighed in the light of the limiting factors discussed below.

Limiting Factors

1. The United States and Cuba both subscribe to two international tele-communications agreements applicable to medium-wave broadcasting. They are the Geneva Telecommunications Convention of 1959 and the North American Regional Broadcasting Agreement, both of which have been ratified by the U.S. Senate and have full treaty status.

These agreements regulate broadcasting so that participating countries may make the most effective use of medium-wave for national radio coverage. Both agreements protect participants from "harmful" or "objectionable"



interference. In addition, the Geneva agreement contains an implied policy against international broadcasting in the standard or medium-wave bands.

The Department of State's legal advisor, in an opinion dated June, 1960, stated that if United States' high-power medium-wave broadcasts to Cuba resulted in harmful or objectional interference to stations in Cuba or signatory nations of the Geneva or NARBA agreements, the United States would be in violation of these agreements. The opinion also stated that if the United States violated either of these agreements, Cuba could lawfully denounce them insofar as its obligations to protect Cuban stations from interference and lawfully could take measures against U.S. stations.

Note should be taken here of the reprisal measures of which Cuba is capable should it choose. Cuba could: (a) seriously interfere with domestic U.S. medium-wave broadcasts over wide areas of the U.S. (as far north as New York and as far west as the Mississippi) with resulting economic repercussions to the U.S. stations concerned; and (b) jam U.S. medium-wave programs to Cuba.

- 2. Clear Channel Another significant domestic consideration results from the fact that any high-power medium-wave station sited in the U.S. and beaming programs to Cuba would, by necessity, have to use one of the seventeen so-called clear channel frequencies allocated exclusively to the U.S. by the NARBA agreement. These channels are not restricted as to the power of the transmitter. Each of the seventeen clear channels used in the U.S. has been assigned for many years to the largest and most powerful broadcast stations in this country, and they form the economic backbone of the major radio networks in the U.S. Unless one of these channels can be made available, there is no suitable frequency on which the U.S. could broadcast to Cuba with a high-power medium-wave transmitter. It is very unlikely that a private station would give up a clear channel voluntarily for use by the government or tolerate limitations on its coverage by sharing, and on the other hand any attempt by the government to obtain a frequency involuntarily is certain to get a strong negative response by the broadcast industry. Nevertheless, the use of these facilities for any short term tactical purposes remains a possibility.
- 3. Jamming It appears that Cuba is in the process of developing a formidable jamming system. It has been confirmed by monitoring observations (by members of our engineering staff and by the FBIS) that Cuba is using noise jammers on Radio Americas' (ex-Radio Swan) shortwave transmissions on 6000 kcs. Radio Americas' medium-wave transmissions on 1160 kcs is now being interfered with intentionally by several Cuban broadcasting stations which



TORSECRET

have been placed on the same frequency. Already identified among these stations are COJK-Camaguey, Radio Imra in Havana (believed to be a new high-power transmitter possibly purchased from Czechoslovakia), and a station in Matanzas.

A very strong Cuban noise jamming station is now also interfering with the Spanish language broadcasts from WGBS in Miami on 710 kcs. The jamming signal is so strong that during the night time hours it is also causing interference to reception of other domestic radio stations in the U.S. operating on 710 kcs in New York City (WOR) and Shreveport, Louisiana (KEEL).

It should also be noted here that the Cuban airways are already cluttered by some 135 medium-wave radio stations, of which an estimated 30 are in the Havana area. This, by itself, complicates the problem of broadcasting via medium-wave to the island.

Atmospheric conditions also enter the broadcasting picture. According to the VOA, Cuba has one of the highest atmospheric noise levels in the world. Noise is much greater in the summer than in the winter. The higher the noise, the stronger the radio signal required for intelligibility.

4. Economic considerations

Owners of several U.S. commercial radio stations queried by the Voice indicated willingness to cooperate with the government in broadcasting medium-wave to Cuba but pointed out some serious financial matters involved. Advertising contracts extend far into the future and would have to be broken if the station undertook Cuban programming. Even though the government paid a radio station for broadcasting its programs during prime evening time, this would severely damage the station's domestic audience and therefore its future commercial standing.

Time could be acquired more easily after normal broadcasting ceases and reception would be better in Cuba, but obviously the audience is smaller after midnight.

These considerations point up the fact that the problem of contracting time on a strong commercial station is great on both sides, government and the station, the cost is high, and the risks high. Another agency has, as noted above, made use of commercial radio time in the Miami area for Spanish language broadcasting which spills over to Cuba. But experience has shown that the signal is not too good, and the operation is highly susceptible to jamming.



II. Reconstituting present covert facilities.

Reports going back for some period of time show that Radio Americas (formerly Radio Swan) is heard in Cuba. But this station became thoroughly discredited some time back, to the extent that a change in name, personnel and programming was needed. Listenership has never been recouped, and CIA representatives at the various inter-agency meetings tell us that they are taking another long look at the operation with an eye toward revitalizing it.

We believe that a complete shift in broadcast tone and attitude, as well as more powerful facilities, are needed. We suggest that the organization and programming be patterned more closely along the concept of Radio Free Europe. Hard, aggressive promotion by a privately financed organization, one which seeks contributions in the U.S., as does RFE, but with undercover financial support from CIA and programming assistance from USIA, could go far to set this vehicle back on its feet and attract listenership in Cuba. This type of "Radio Free Cuba" approach, bringing the operation out into the open rather than in the murky, mysterious shadows as heretofore, could make the station a good channel for tough, hard programming into Cuba.

It might be well here to discuss the different concepts of VOA and covert programming. VOA broadcasts direct to Latin America on short wave only. It will have a greatly increased technical effectiveness starting in December when the 500 kw short-wave transmitters in Greenville go on the air. VOA's tone is, and we believe should continue to be, more like the BBC than like RFE or Radio Liberty. VOA is directly attributed to the U.S. Government. It's usefulness is strategic, not tactical. The experiences of the British station in Cyprus (whose effectiveness was destroyed in two days during Suez) and of Radio Swan (whose effectiveness diminished drastically after the Bay of Pigs) are adequate to show the unwisdom of trying to use radio for short-range tactical purposes when not supported by hard facts.

When covert or semi-covert radio operations are established, particular care must be given to the purpose and the timing of the operation. Assuming that it is possible to establish a Radio Free Cuba with attribution to some private American organization, the stance and the tone and the purpose will have to be clearly defined. It seems inevitable to us that such an operation would in time take on the tone of the Cuban refugees in Miami and the station would begin to sound like the voice of those who propose to liberate Cuba from Castroism in the near future. Fiery denunciations and exhortations can be effective only for

a relatively short time before they become incredible, boring, and exasperating, unless supported by action. The broadcasts, to achieve peak effectiveness, must be coordinated with military operations. If one is behind the other then the tactical use of the radio station will be ineffective.

The hard fact should be faced, therefore, that the new operation would have to have a stance and posture quite different from that of VOA's, or there would be no use starting it. Simply to give the Cuban refugee organizations their own radio mouthpiece is not an end in itself, because of the self-limiting factors in this kind of broadcasting, as we have seen them elsewhere.

Basically, then, the key to starting such an operation would have to be the decision in such an operation to military action. This would be an expendable tactical radio operation with the mission of raising the Cuban expectations of U.S. assistance, and also of reminding Cubans that when Castro falls retribution will be meeted out to those who do not abandon him promptly. In our judgment, VOA's role would still be to continue its longer range strategic approach.

The present covert WGBS Miami operation should also be improved. We understand that this station has become somewhat discredited within Cuba because of the strong refugee flavor of its programming. Greater acceptance might be obtained by devoting this valuable broadcast time (to which persons in Cuba listen at considerable personal risk) to hard news, commentary, and documented programming, rather than flowery refugee oratory.

III. Possible New Medium-Wave Approaches

- A. The "Courier" is a ship-based transmitter run by USIA and based at Rhodes, Greece. Use of this type of transmitter to Cuba has been debated at some length. While the idea sounds good, and would virtually insure a clear signal into the island, it would require some basic decisions. For one thing, the "Courier" is currently engaged in Arabic-language broadcasting in the Middle East and will not be available until new facilities are constructed and available toward the end of 1963. To pull it out before then would mean the termination of Arabic language broadcasts. No other "Courier" type ship is available. Apart from this major consideration, this operation could run afoul of one or another of the "limiting factors" mentioned above, plus a few more:
- 1) Communications channel problems: Someone (The FCC?) would have to assign the transmitter a frequency or frequencies which would not conflict with those allocated to U.S. stations. The "Courier" is a powerful transmitter and the possibilities of interference run high. The fact that



its antennae are non-directional makes this risk even greater. The FCC would have to be asked for an opinion on this one very early in the game.

- 2) Maritime law problems: Maritime law forbids medium-wave broadcasting from the high seas. The "Courier" would have to be anchored within U.S. territorial limits, or inside the limits of a third country which might cooperate with us in the operation. The possibility of anchoring it at Guantanamo could be explored.
- B. Guantanamo Naval Base. We understand that broadcasts over the base radio station reach out into nearby areas, including the city of Santiago de Cuba. An increase in the power might extend the signal across the island to Havana. USIA could assist in programming if a decision were made to use this station for our political purposes. A more feasible arrangement would be for the Guantanamo station to relay regular VOA programs, use VOA tapes, etc.
- C. The British are currently installing a TV station in the Bahama Islands. It may be possible to bounce a signal from there to Cuba. There are also medium-wave stations in the Islands, but they have very little power. If given the authority, we could enter negotiations with the British for limited use of the TV facility and land to install a new medium-wave transmitter beamed toward Cuba.
- D. In October of this year we expect to take delivery of a 50 kw medium-wave transmitter which is one component of a mobile transmitter complex also including three 50 kw short-wave transmitters. This mobile unit might be diverted to the Cuban problem if an appropriate location were available. We understand that under average propagation conditions the transmitter will have a range of 100 miles, up to 300 miles if given a particularly good location.

Apart from use on the mainland, which has objectionable features from various points of view including those of existing commercial facilities here, we could explore the possibility of siting somewhere in the Bahamas, as discussed above, or in Jamaica. Negotiations would be required in either case. We originally considered the Dominican Republic as an appropriate location but discarded this because of atmospheric conditions which virtually preclude a clear signal from there to Cuba.

E. Installation of a permanent medium-wave facility in Southern Florida. Voice of America technicians have studied this possibility at some length.

VOA currently has an unused 500 kw transmitter which could be installed in Florida for an estimated cost of \$1.5 million excluding cost of power lines to the site. Construction time would be one year. The 500 kw with directional antennas would provide a massive signal covering Cuba day and night, summer and winter. This signal would also cover the entire Caribbean including most of Central America and parts of Colombia and Ecuador. Studies indicate that the transmitter could be mounted in trucks and therefore be mobile at no extra cost over a fixed installation.

The annual operating cost of a 500 kw transmitter, programming five hours daily would be in the neighborhood of \$350,000.

IV. Current Overt Radio Programming to Cuba

The daily VOA three-hour short-wave Cuban show (plus six more hours in Spanish directed at Latin America in general) is the U.S. Government's only existing overt radio transmission to Cuba. Reliable sources indicate good listenership to this program, but the fact remains that Cuba has relatively few short-wave receivers (estimated in 1960 at 200,000, probably less now due to breakdowns) and our prospective audience on the island is therefore limited. VOA suggests that the short-wave audience in Cuba can be increased materially by undercover import of great numbers of short-wave receivers into the island. If such activity were authorized, the equipment smuggled into Cuba should be of the type most commonly used there now so as to reduce the danger of apprehension by the Cuban authorities.

Format of the Cuban hours is as follows:

Is minutes of news every hour on the hour, with the balance consisting of commentaries on Cuban developments; interviews with Cuban refugees in Miami, features such as Voice Over the Seá, which consists of excerpts of letters from Cuba received daily; adventure programs with a heavy anti-Castro emphasis; special events coverages such as the recent arrival of a group of Cuban exiles in Washington; programs designed to counteract Castro propaganda lies.

Other material bearing on Cuba is interspersed throughout the remaining six Spanish broadcast hours and averages about one hour in length per day. An example of this type of material is "The Three Villalobos," an adventure series about three brothers who lead the fight against a Castro-like mythical Communist dictatorship.

One final thought. Being directly attributed to the U.S. Government, our daily VOA programming maintains a high level of credibility. We feel that this level must be maintained at all cost. We must look to covert or other types of operations for programming of a harder propaganda line. It is our opinion that the U.S. Government should not engage in electronic warfare in the Cuban situation.